Appendix 3.13A
ACAM Air Emissions Calculations

APPENDIX 3.13A

ACAM Air Emissions Calculations

The U.S. Air Force's Air Conformity Applicability Model (ACAM), Version 5.0, January 2014, was used to estimate construction- and operations-related air emissions for each of the four proposed locations of NGA's West Facility.

Construction-related air emissions for each site were estimated based on data provided by NGA and the U.S. Army Corps of Engineers, and on standard assumptions, including the following phases:

- Grading of the sites will begin in September 2017 and last for approximately 3 months.
- Demolition will begin at the Mehlville Site in December 2017 and last for approximately 3 months. Demolition at the Fenton, St. Louis City, and St. Clair County sites is expected to be completed prior to NGA's acquisition of the property; therefore, demolition-related air emissions were not calculated for these sites.
- Demolition waste hauling will occur during the demolition at the Mehlville Site.
- Trenching along the site perimeters will begin in January 2018 and last for approximately 30 days.
- Building construction will begin at each site in January 2018 and last for approximately 61 months. This will include construction of the Main Operations Building, Central Utility Plant, Visitor Control Center, Remote Inspection Facility, and Structured Parking Garages.
- Architectural coatings of the facility will begin in February 2023 and last for approximately 1 month.
- Paving of site streets and parking areas will begin in February 2023 and last for approximately 30 days.

Operational air emissions were also estimated for each site. Operational air emissions will begin once construction of the NGA West Facility is completed, anticipated in June 2023. The NGA West Facility is expected to be fully operational in 2024. Operational air emissions include the following sources:

- Emergency generator activity using Diesel #2 fuel.
- The facility's emergency generator will have an associated storage tank capable of storing enough fuel to supply the generator for 24 hours.
- Personnel commuting based on the average commute distance for each of the four potential NGA West locations.

The following tables detail the expected air emissions related to each of the four proposed NGA West Facility locations for the years 2017 through 2024. Over the duration of the project, 2023 is expected to have the highest air emissions. This is a result of the construction activities during the first half of the year and the facility operations during the second half of the year. Expected air emissions for the No Action Alternative are also included below. The existing NGA West Facility will remain in operation during the first half of 2023; therefore, emissions for 2023 from the No Action Alternative would include personnel commuting to the existing site. Similarly, emissions for 2024 from the No Action Alternative would include personnel commuting to the existing site. The ACAM output reports for each site are attached to this Appendix.

Fenton Site

VOC (tons/year)	NO_x (tons/year)	CO (tons/year)	SO_2 (tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)	Lead (tons/year)
2017						
0.694	5.200	3.097	0.008	378.322	0.223	0.000
2018						
0.587	3.667	3.449	0.010	0.816	0.170	0.000
2019						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2020						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2021						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2022						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2023						
33.418	9.865	178.470	0.259	0.604	0.349	0.000
2024						
20.045	16.070	305.069	0.441	0.992	0.556	0.000

Mehlville Site

VOC (tons/year)	NO_x (tons/year)	CO (tons/year)	SO_2 (tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)	Lead (tons/year)
2017						
0.821	5.730	4.329	0.010	131.145	0.245	0.000
2018						
0.900	4.772	6.824	0.014	5.365	0.215	0.000
2019						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2020						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2021						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2022						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2023						
34.619	10.819	198.206	0.276	0.656	0.373	0.000
2024						
22.249	17.705	338.903	0.471	1.081	0.597	0.000

North St. Louis Site

VOC (tons/year)	NO_x (tons/year)	CO (tons/year)	SO_2 tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)	Lead (tons/year)
2017						
0.694	5.200	3.097	0.008	175.076	0.223	0.000
2018						
0.587	3.667	3.449	0.010	0.657	0.170	0.000
2019						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2020						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2021						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2022						
0.558	3.478	3.268	0.010	0.170	0.161	0.000
2023						
33.178	9.738	175.838	0.256	0.597	0.345	0.000
2024						
19.751	15.852	300.558	0.437	0.980	0.550	0.000

St. Clair Site

VOC (tons/year)	NO_x (tons/year)	CO (tons/year)	SO_2 (tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)	Lead (tons/year)
2017						
0.694	5.200	3.110	0.008	234.226	0.223	0.000
2018						
0.588	3.667	3.478	0.010	0.802	0.170	0.000
2019						
0.558	3.478	3.296	0.010	0.170	0.161	0.000
2020						
0.558	3.478	3.296	0.010	0.170	0.161	0.000
2021						
0.558	3.478	3.296	0.010	0.170	0.161	0.000
2022						
0.558	3.478	3.296	0.010	0.170	0.161	0.000
2023						
46.786	19.921	401.195	0.440	1.147	0.598	0.000
2024						
43.046	33.309	686.877	0.752	1.924	0.984	0.000

No Action Alternative

VOC (tons/year)	NO_x (tons/year)	CO (tons/year)	SO_2 (tons/year)	PM_{10} (tons/year)	$PM_{2.5}$ (tons/year)	Lead (tons/year)
2023						
9.699	7.194	148.870	0.131	0.394	0.181	0.000
2024						
13.856	10.277	212.671	0.188	0.563	0.259	0.000

Table AQ-1

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with Air Force Instruction 32-7040, Air Quality Compliance and Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAMBERT-ST. LOUIS IAP
County(s): St Louis
Regulatory Area(s): St Louis, MO-IL

b. Action Title: Construction of the NGA West Facility at the Fenton Site

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2017

e. Action Description:

The Proposed NGA action is to vacate the South 2nd Street facility, and then site, construct, and operate a purpose built geospatial collection, analysis, and distribution facility.

f. Point of Contact:

Name: Caitlin Santinelli
Title: Scientist
Organization: CH2M HILL
Email: caitlin.santinelli@ch2m.com
Phone Number: 678.530.4148

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2017

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.694	100	No
NOx	5.200	100	No
CO	3.097		
SOx	0.008	100	No
PM 10	378.322		
PM 2.5	0.223	100	
Pb	0.000		
NH3	0.003	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2018

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.587	100	No
NOx	3.667	100	No
CO	3.449		
SOx	0.010	100	No
PM 10	0.816		
PM 2.5	0.170	100	
Pb	0.000		
NH3	0.015	100	No

2019

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2020

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2021

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	33.418	100	No
NOx	9.865	100	No
CO	178.470		
SOx	0.259	100	No
PM 10	0.604		
PM 2.5	0.349	100	
Pb	0.000		
NH3	1.873	100	No

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	20.045	100	No
NOx	16.070	100	No
CO	305.069		
SOx	0.441	100	No
PM 10	0.992		
PM 2.5	0.556	100	
Pb	0.000		
NH3	3.207	100	No

All estimated emissions associated with this action are below the conformity threshold values established at 40 CFR 93.153 (b); therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Caitlin Santinelli, Scientist DATE

Table AQ-2

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with Air Force Instruction 32-7040, Air Quality Compliance and Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAMBERT-ST. LOUIS IAP
County(s): St Louis
Regulatory Area(s): St Louis, MO-IL

b. Action Title: Construction of the NGA West Facility at the Mehlville Site

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2017

e. Action Description:

The Proposed NGA action is to vacate the South 2nd Street facility, and then site, construct, and operate a purpose-built geospatial collection, analysis, and distribution facility.

f. Point of Contact:

Name: Caitlin Santinelli
Title: Scientist
Organization: CH2M HILL
Email: caitlin.santinelli@ch2m.com
Phone Number: 678.530.4148

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2017

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.821	100	No
NOx	5.730	100	No
CO	4.329		
SOx	0.010	100	No
PM 10	131.145		
PM 2.5	0.245	100	
Pb	0.000		
NH3	0.013	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2018

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.900	100	No
NOx	4.772	100	No
CO	6.824		
SOx	0.014	100	No
PM 10	5.365		
PM 2.5	0.215	100	
Pb	0.000		
NH3	0.044	100	No

2019

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2020

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2021

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	34.619	100	No
NOx	10.819	100	No
CO	198.206		
SOx	0.276	100	No
PM 10	0.656		
PM 2.5	0.373	100	
Pb	0.000		
NH3	2.081	100	No

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	22.249	100	No
NOx	17.705	100	No
CO	338.903		
SOx	0.471	100	No
PM 10	1.081		
PM 2.5	0.597	100	
Pb	0.000		
NH3	3.564	100	No

All estimated emissions associated with this action are below the conformity threshold values established at 40 CFR 93.153 (b); therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Caitlin Santinelli, Scientist DATE

Table AQ-3

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with Air Force Instruction 32-7040, Air Quality Compliance and Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAMBERT-ST. LOUIS IAP
County(s): St Louis City
Regulatory Area(s): St Louis, MO-IL; St Louis, MO

b. Action Title: Construction of the NGA West Facility at the St. Louis City Site

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2017

e. Action Description:

The Proposed NGA action is to vacate the South 2nd Street facility, and then site, construct, and operate a purpose-built geospatial collection, analysis, and distribution facility.

f. Point of Contact:

Name: Caitlin Santinelli
Title: Scientist
Organization: CH2M HILL
Email: caitlin.santinelli@ch2m.com
Phone Number: 678.530.4148

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: __X__ applicable
_____ not applicable

Conformity Analysis Summary:

2017

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.694	100	No
NOx	5.200	100	No
CO	3.097		
SOx	0.008	100	No
PM 10	175.076		
PM 2.5	0.223	100	
Pb	0.000		
NH3	0.003	100	No
St Louis, MO			
VOC	0.694		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

NOx	5.200		
CO	3.097	100	No
SOx	0.008		
PM 10	175.076		
PM 2.5	0.223		
Pb	0.000		
NH3	0.003		

2018

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.587	100	No
NOx	3.667	100	No
CO	3.449		
SOx	0.010	100	No
PM 10	0.657		
PM 2.5	0.170	100	
Pb	0.000		
NH3	0.015	100	No
St Louis, MO			
VOC	0.587		
NOx	3.667		
CO	3.449	100	No
SOx	0.010		
PM 10	0.657		
PM 2.5	0.170		
Pb	0.000		
NH3	0.015		

2019

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No
St Louis, MO			
VOC	0.558		
NOx	3.478		
CO	3.268	100	No
SOx	0.010		
PM 10	0.170		
PM 2.5	0.161		
Pb	0.000		
NH3	0.015		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2020

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No
St Louis, MO			
VOC	0.558		
NOx	3.478		
CO	3.268	100	No
SOx	0.010		
PM 10	0.170		
PM 2.5	0.161		
Pb	0.000		
NH3	0.015		

2021

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No
St Louis, MO			
VOC	0.558		
NOx	3.478		
CO	3.268	100	No
SOx	0.010		
PM 10	0.170		
PM 2.5	0.161		
Pb	0.000		
NH3	0.015		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.268		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No
St Louis, MO			
VOC	0.558		
NOx	3.478		
CO	3.268	100	No
SOx	0.010		
PM 10	0.170		
PM 2.5	0.161		
Pb	0.000		
NH3	0.015		

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	33.178	100	No
NOx	9.738	100	No
CO	175.838		
SOx	0.256	100	No
PM 10	0.597		
PM 2.5	0.345	100	
Pb	0.000		
NH3	1.845	100	No
St Louis, MO			
VOC	33.178		
NOx	9.738		
CO	175.838	100	Yes
SOx	0.256		
PM 10	0.597		
PM 2.5	0.345		
Pb	0.000		
NH3	1.845		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	19.751	100	No
NOx	15.852	100	No
CO	300.558		
SOx	0.437	100	No
PM 10	0.980		
PM 2.5	0.550	100	
Pb	0.000		
NH3	3.160	100	No
St Louis, MO			
VOC	19.751		
NOx	15.852		
CO	300.558	100	Yes
SOx	0.437		
PM 10	0.980		
PM 2.5	0.550		
Pb	0.000		
NH3	3.160		

All estimated emissions associated with this action are below the conformity threshold values established at 40 CFR 93.153 (b); therefore, the requirements of the General Conformity Rule are applicable.

_____ _____

Caitlin Santinelli, Scientist DATE

Table AQ-4

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with Air Force Instruction 32-7040, Air Quality Compliance and Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAMBERT-ST. LOUIS IAP
County(s): St Clair
Regulatory Area(s): St Louis, MO-IL

b. Action Title: Construction of the NGA West Facility at the St. Clair County Site, Illinois

c. Project Number/s (if applicable):

d. Projected Action Start Date: 9 / 2017

e. Action Description:

The Proposed NGA action is to vacate the South 2nd Street facility, and then site, construct, and operate a purpose-built geospatial collection, analysis, and distribution facility.

f. Point of Contact:

Name: Caitlin Santinelli
Title: Environmental Scientist
Organization: CH2M HILL
Email: caitlin.santinelli@ch2m.com
Phone Number: 678.530.4148

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2017

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.694	100	No
NOx	5.200	100	No
CO	3.110		
SOx	0.008	100	No
PM 10	234.226		
PM 2.5	0.223	100	
Pb	0.000		
NH3	0.003	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2018

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.588	100	No
NOx	3.667	100	No
CO	3.478		
SOx	0.010	100	No
PM 10	0.802		
PM 2.5	0.170	100	
Pb	0.000		
NH3	0.015	100	No

2019

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.296		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2020

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.296		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2021

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.296		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.558	100	No
NOx	3.478	100	No
CO	3.296		
SOx	0.010	100	No
PM 10	0.170		
PM 2.5	0.161	100	
Pb	0.000		
NH3	0.015	100	No

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	46.786	100	No
NOx	19.921	100	No
CO	401.195		
SOx	0.440	100	No
PM 10	1.147		
PM 2.5	0.598	100	
Pb	0.000		
NH3	4.035	100	No

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	43.046	100	No
NOx	33.309	100	No
CO	686.877		
SOx	0.752	100	No
PM 10	1.924		
PM 2.5	0.984	100	
Pb	0.000		
NH3	6.914	100	No

All estimated emissions associated with this action are below the conformity threshold values established at 40 CFR 93.153 (b); therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Caitlin Santinelli, Environmental Scientist DATE

Table AQ-5

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with Air Force Instruction 32-7040, Air Quality Compliance and Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LAMBERT-ST. LOUIS IAP
County(s): St Louis City
Regulatory Area(s): St Louis, MO-IL; St Louis, MO

b. Action Title: Relocation of NGA West Facility - No Action Alternative

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2023

e. Action Description:

The Proposed NGA action is to vacate the South 2nd Street facility, and then site, construct, and operate a purpose-built geospatial collection, analysis, and distribution facility. However, if none of the proposed alternatives is suitable, NGA may choose to take no action.

f. Point of Contact:

Name: Caitlin Santinelli
Title: Scientist
Organization: CH2M HILL
Email: caitlin.santinelli@ch2m.com
Phone Number: 678.530.4148

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: __X__ applicable
_____ not applicable

Conformity Analysis Summary:

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	9.699	100	No
NOx	7.194	100	No
CO	148.870		
SOx	0.131	100	No
PM 10	0.394		
PM 2.5	0.181	100	
Pb	0.000		
NH3	1.568	100	No
St Louis, MO			

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

VOC	9.699		
NOx	7.194		
CO	148.870	100	Yes
SOx	0.131		
PM 10	0.394		
PM 2.5	0.181		
Pb	0.000		
NH3	1.568		

2024 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
St Louis, MO-IL			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000	100	
Pb	0.000		
NH3	0.000	100	No
St Louis, MO			
VOC	0.000		
NOx	0.000		
CO	0.000	100	No
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		

All estimated emissions associated with this action are below the conformity threshold values established at 40 CFR 93.153 (b); therefore, the requirements of the General Conformity Rule are applicable.

_____ _____

Caitlin Santinelli, Scientist DATE